

AMENDMENTS TO THE CLAIMS

In accordance with the PTO's revised amendment format, a detailed listing of all claims has been provided. A status identifier is provided for each claim in a parenthetical expression following each claim number.

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Claims 1-19 were pending.

Claims 4 and 12-15 are canceled without prejudice.

No claims are added.

Claims 1, 2, 8, 16, 18, and 19 are amended without prejudice.

10 Accordingly, claims 1-3, 5-11, and 16-19 are pending.

1. (Currently amended) A method for recording compressed image data onto a storage medium, comprising the steps of:

(a) compressing an image by:

(i) dividing the image into a plurality of regions;

5 (ii) for each region:

(a) selecting a plurality of adjacent pixels corresponding to the same color component, wherein said selected pixels from a particular region form a pixel sample set, and wherein corresponding pixel sample sets from said plurality of regions form a group,

10 (b) for each selected pixel, encoding a pixel value of said selected pixel to generate a fixed length token and a variable length token,

(c) associating said variable length tokens for each pixel value in said pixel sample set to form a variable length token vector, and

(d) arranging bits of said fixed length tokens to
15 associate each bit of a pixel value with corresponding bits of other pixels values within said pixel sample set to form a fixed length token vector for each bit position of said fixed length tokens;

(iii) for each group

(a) forming a first bit stream including said variable
20 length token vector of each of said plurality of regions, and

(b) forming a second bit stream including said fixed length token vectors of each of said plurality of regions,

(iv) forming a primary bit stream of constant length and if required, a supplemental bit stream of inconstant length, wherein both bit streams may include said first and second bit streams corresponding to each of said groups; and

5 (v) repeating steps (ii)-(iv) for a next pixel sample set selected from each region until the pixels of each of said plurality of regions have been encoded and added to one of a plurality of primary bit streams and one of a plurality of supplemental bit streams;

~~(a) receiving a plurality of primary bit streams of fixed length and a~~
10 ~~plurality of supplemental bit streams of variable length from a codec, said plurality of primary bit streams and said plurality of supplemental bit streams representing data to be recorded onto the storage medium;~~

(b) recording each of said plurality of primary bit streams onto the storage medium;

15 (c) storing each of said plurality of supplemental bit streams in a temporary memory location; and

(d) after said plurality of primary bit streams have been recorded onto the storage medium, retrieving said plurality of supplemental bit streams from said temporary memory location and recording said supplemental bit streams
20 onto the storage medium.

2. (Currently amended) The method of claim 1 wherein said plurality of primary bit streams are recorded onto the storage medium in real time as they are ~~received from said code~~generated and wherein said plurality of supplemental bit streams are recorded onto the storage medium in a non-real
5 time manner after recording of said plurality of primary bit streams.

3. (Original) The method of claim 1 wherein a progressive lossless codec generates said plurality of primary bit streams of fixed length and said plurality of supplemental bit streams of variable length.

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4. (Cancelled)

5. (Original) The method of claim 3 wherein said plurality of primary bit streams and said plurality of supplemental bit streams are generated from
15 high definition image data.

6. (Original) The method of claim 1 wherein the storage medium is a high definition tape.

20 7. (Original) The method of claim 1 wherein the storage medium is a hard disk array.

8. (Currently amended) A The method of claim 1, further comprising ~~for providing selectable quality presentation of the compressed image data stored on a the storage medium by, comprising the steps of:~~

- (a) determining a desired data presentation quality level;
- 5 (b) if said desired data presentation quality level is lossy, then
 - (i) retrieving a primary portion of the compressed data from the storage medium, and
 - (ii) decoding said primary portion of the compressed data;
- (c) if said desired data presentation quality level is lossless, then
- 10 (i) retrieving said primary portion and a supplemental portion of the compressed data from the storage medium, and
- (ii) decoding said primary and supplemental portions of the compressed data; and
- (d) presenting said decoded data.

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9. (Original) The method of claim 8, wherein said primary portion of the compressed data comprises variable length token vectors or a combination of variable length token vectors and fixed length token vectors.

10. (Original) The method of claim 9, wherein said supplemental portion of the compressed data comprises fixed length token vectors, a combination of fixed length token vectors and variable length token vectors, or nothing at all.

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11. (Original) The method of claim 10, further comprising the step of: transferring said variable length compressed data to a temporary memory location prior to said step of decoding said primary and supplemental portions of the compressed data.

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12-15. (Cancelled)

16. (Currently amended) A data compression system for recording data onto storage media, comprising:

(a) a codec for generating a plurality of primary bit streams of fixed length and a plurality of supplemental bit streams of variable length, said

5 ~~plurality of primary and supplemental bit streams representing data to be recorded onto the storage media by:~~

_____ (i) dividing an image into a plurality of regions;

_____ (ii) for each region:

_____ (a) selecting a plurality of adjacent pixels corresponding
10 to the same color component, wherein said selected pixels from a particular region form a pixel sample set, and wherein corresponding pixel sample sets from said plurality of regions form a group,

_____ (b) for each selected pixel, encoding a pixel value of said selected pixel to generate a fixed length token and a variable length token,

15 _____ (c) associating said variable length tokens for each pixel value in said pixel sample set to form a variable length token vector, and

_____ (d) arranging bits of said fixed length tokens to associate each bit of a pixel value with corresponding bits of other pixels values within said pixel sample set to form a fixed length token vector for each bit
20 position of said fixed length tokens;

_____ (iii) for each group

_____ (a) forming a first bit stream including said variable length token vector of each of said plurality of regions, and

_____ (b) forming a second bit stream including said fixed length token vectors of each of said plurality of regions,

_____ (iv) forming a primary bit stream of constant length and if required, a supplemental bit stream of inconstant length, wherein both bit
5 streams may include said first and second bit streams corresponding to each of said groups; and

_____ (v) repeating steps (ii)-(iv) for a next pixel sample set selected from each region until the pixels of each of said plurality of regions have been encoded and added to one of a plurality of primary bit streams and one of a
10 plurality of supplemental bit streams;

(b) means for receiving said generated plurality of primary bit streams an said plurality of supplemental bit streams;

(c) memory for string each of said plurality of supplemental bit streams; and

15 (d) means for recording onto the storage media each of said plurality of primary bit streams and said plurality of supplemental bit streams.

17. (Original) The data compression system of claim 16 wherein said codec is a progressive lossless codec.

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18. (Currently amended) A system for providing selectable quality presentation of compressed data stored on a storage medium by a data compression system as recited in claim 16, the system for providing selectable quality presentation of compressed data comprising:

- 5 (a) means for determining a desired data presentation quality level;
- (b) means for retrieving a primary portion of the compressed data and a supplemental portion of the compressed data from the storage medium; and
- (c) means for decoding said primary portion and said supplemental portion of the compressed data to facilitate selective data presentation with
- 10 either lossy quality or lossless quality.

19. (Currently amended) The ~~method~~ system of claim 18 wherein said means for decoding said primary portion and said supplemental portion of the compressed data to facilitate selective data presentation with either lossy

15 quality or lossless quality is a progressive lossless codec.